

Title (en)  
BINDING DEVICE, BINDING SYSTEM, CONSUMABLE ITEM LOADING DEVICE, CONSUMABLE ITEM LOADING SYSTEM, AND CONSUMABLE ITEM LOADING METHOD

Title (de)  
BINDEVORRICHTUNG, BINDESYSTEM, LADEVORRICHTUNG FÜR VERBRAUCHSARTIKEL, LADESYSTEM FÜR VERBRAUCHSARTIKEL UND LADEVERFAHREN FÜR VERBRAUCHSARTIKEL

Title (fr)  
DISPOSITIF DE LIAISON, SYSTÈME DE LIAISON, DISPOSITIF DE CHARGEMENT D'ARTICLE CONSOMMABLE, SYSTÈME DE CHARGEMENT D'ARTICLE CONSOMMABLE ET PROCÉDÉ DE CHARGEMENT D'ARTICLE CONSOMMABLE

Publication  
**EP 4245945 A1 20230920 (EN)**

Application  
**EP 23161758 A 20230314**

Priority  
JP 2022038982 A 20220314

Abstract (en)  
A binding device includes: a binding unit configured to bind a binding object with a consumable item; a consumable item accommodation unit configured to accommodate a consumable item to be supplied to the binding unit; a loading consumable item accommodation unit configured to accommodate a consumable item to be loaded into the consumable item accommodation unit; and a loading unit configured to load the consumable item accommodated in the loading consumable item accommodation unit into the consumable item accommodation unit.

IPC 8 full level  
**E04G 21/12** (2006.01)

CPC (source: CN EP US)  
**B21F 7/00** (2013.01 - US); **B21F 15/06** (2013.01 - US); **B25J 11/005** (2013.01 - US); **B65G 47/90** (2013.01 - CN); **B65H 49/20** (2013.01 - CN); **B65H 67/02** (2013.01 - CN); **E04C 5/167** (2013.01 - US); **E04G 21/123** (2013.01 - CN EP); **B65H 2701/30** (2013.01 - CN)

Citation (applicant)  
JP 2021049568 A 20210401 - SUMITOMO MITSUI CONSTRUCTION CO LTD, et al

Citation (search report)  

- [XA] US 2021354945 A1 20211118 - DENG YINGCONG [CN], et al
- [XA] DE 4344786 A1 19940630 - MURATA MACHINERY LTD [JP]
- [A] CN 204826674 U 20151202 - HUAINAN ZHIHUI DECORATIVE ENGINEERING CO LTD
- [A] JP 7028581 B2 20220302

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**EP 4245945 A1 20230920**; AU 2023201557 A1 20230928; CN 116752765 A 20230915; JP 2023133788 A 20230927; US 2023286034 A1 20230914

DOCDB simple family (application)  
**EP 23161758 A 20230314**; AU 2023201557 A 20230314; CN 202310239071 A 20230313; JP 2022038982 A 20220314; US 202318120720 A 20230313